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(71) Applicant : **FABIO PERINI S.p.A.**
Via per Mugnano
I-55100 Lucca (IT)

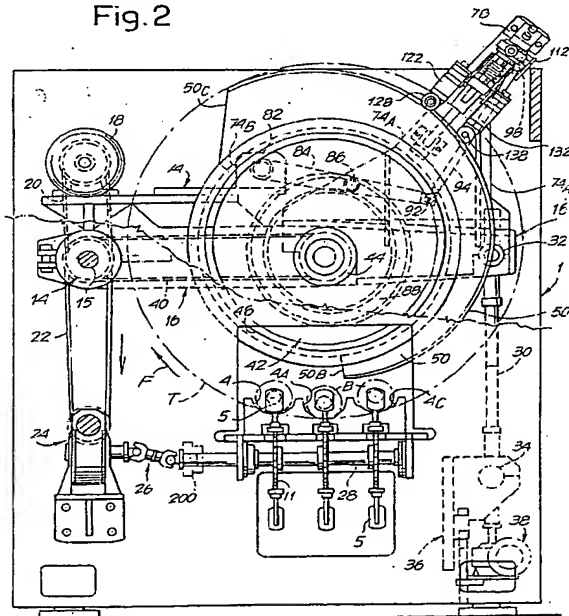
(72) Inventor : **Biagiotti, Guglielmo**
Via di Vorno n.105
I-55012 Capannori, Lucca (IT)

(74) Representative : **Mannucci, Gianfranco,**
Dott.-Ing. et al
Ufficio Tecnico Ing. A. Mannucci Via della
Scala 4
I-50123 Firenze (IT)

(54) Method and machine for cutting rolls of paper and the like.

(57) The blade (50) has a helicoidal shape with an external cutting edge (50A) having increasing radius and developing over a partial sector, the difference between maximum and minimum radius being at least equal to the maximum diameter of the rolls or logs (B) to be cut. The shaft (45) and the axis of rotation of the blade rotor (42) are not displaced during the rotor's revolution and are slightly inclined with respect to the direction of advancement of the logs within their carriers. Thus the cut performed on the rolls (B) and the cutting edge (50A) will, on the average, be perpendicular to the axes of the rolls (B). The advancement of the roll(s) (B) in the carriers is continuous and the cutting takes place during a portion of each revolution of the rotor and during that portion of the roll's advancement which corresponds to the axial length of the small rolls to be produced.

Fig. 2



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which under Rule 45 of the European Patent Convention
shall be considered, for the purposes of subsequent
proceedings, as the European search report

EP 93 83 0042

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 5)
X	FR-A- 622 332 (UNIVERSELLE CIGARETTENMASCHINEN-FABRIK)	1,2	B 26 D 3/16
Y	* the whole document *	3,5-7	B 26 D 5/22
Y	---	3	B 26 D 7/12
A	GB-A- 247 452 (KOERNER) * page 1, line 76 - page 2, line 9; figure 4 *	10	
Y	---	6,7	
A	GB-A- 419 615 (WARD BAKING COMPANY) * page 2, line 5 - line 116; page 3, line 95 - line 120 * -/-		
			TECHNICAL FIELDS SEARCHED (Int. Cl. 5)
			B 26 D B 24 B A 24 C
INCOMPLETE SEARCH			
<p>The Search Division considers that the present European patent application does not comply with the provisions of the European Patent Convention to such an extent that it is not possible to carry out a meaningful search into the state of the art on the basis of some of the claims</p> <p>Claims searched completely: Claims searched incompletely: Claims not searched: 16 Reason for the limitation of the search:</p> <p>The claim 16 is missing from the application</p>			
Place of search THE HAGUE		Date of completion of the search 20-09-1993	Examiner VAGLIENTI G L M
CATEGORY OF CITED DOCUMENTS		<p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons A : member of the same patent family, corresponding document</p>	
<p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p>			

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet -B-

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☐ None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



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DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl. 5)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
Y	US-A-1 909 029 (WALTER) ---	6	
X	US-A-1 909 029 * page 4, line 23 - line 49; figures 5-7 *	17, 18	
A	GB-A-2 181 984 (FINANZIARIA LUCCHESI S.P.A.) * abstract *	4	
A	GB-A-1 581 723 (MOLINS LIMITED) * page 1, line 56 - line 72; figure 1 *	4	
Y	US-A-3 969 966 (DILLON) * column 2, line 25 - column 3, line 45; figures *	5	
A	US-E- 32 331 (FULK ET AL.) * abstract *	8, 9	TECHNICAL FIELDS SEARCHED (Int. Cl. 5)
A	DE-U-8 710 211 (SCHINDLER & WAGNER KG) ---		
A	US-A-3 213 731 (RENARD) ---		
A	GB-A- 367 775 (SWIFT AND COMPANY) ---		
A	US-A-3 499 475 (LONG) -----		

EPO FORM 1500 Cl. 52 (P. 110)



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LACK OF UNITY OF INVENTION A POSTERIORI

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims 1,2,4-9,17,18 : Rotary blade cutting machine equipped with a blade having a helicoidal development.
2. Claims 3,10-15 : Cutting machine including a radially and axially movable blade-sharpening means.

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